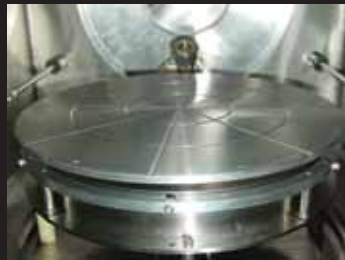


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# Thermal Evaporation Systems



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# NANO-MASTER Thermal Evaporation Systems



**NTE-4000**



**NTE-3000**



NANO-MASTER Thermal Evaporation systems are built for a wide range of applications in organic and metal evaporation. They have a 2kVA system utilizing SCR circuitry for accurate temperature control which is crucial when evaporating organic materials. The thermal evaporators are designed with extreme care to achieve clean, uniform, and reproducible processes on a small footprint. They provides low cost, high quality capabilities for demanding applications in R&D and low scale manufacturing.

The NTE-4000 is a stand alone version of the NTE-3000 thermal evaporator system allowing more room for additional options such as various chamber sizes, substrate cleaning and cooling, co-evaporation, and sputtering capabilities.

## **FEATURES**

- 12" Bell Jar / Cylindrical 10" SS / Cubical 14" SS chamber
- Up to 7"x7" plates and 200mm wafers
- Two evaporation boats or crucibles
- Water cooled feedthroughs
- Solid state switching for sequential evaporation
- SCR circuitry for accurate current control
- Individual source and substrate shutters
- Cross contamination shields
- Quartz crystal thickness sensor
- Twist lock mechanism for easy substrate load/unload
- Substrate rotation
- Closed loop evaporation control
- Fully automated PC based, recipe driven, LabVIEW user interface
- EMO protection and safety interlocks

## **OPTIONS**

- Substrate heating up to 800°C or chilled wafer cooling
- Glancing Angle Deposition (GLAD) with rotation
- Planetary substrate holder
- Additional power module for co-evaporation
- Additional evaporation sources up to six
- RF/DC substrate bias
- Ion source for substrate cleaning
- Magnetron source for sputtering
- MFCs for reactive sputtering/evaporation
- Automatic load/unload
- Various pumping options including cryo pumping stations

## **APPLICATIONS**

- Metallization in IC interconnects
- Metal contact layer in CIGS Applications
- Organics Field Effect Transistors
- Perovskite Solar Cells Applications
- OLED